

IN THE CLAIMS:

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1. A narrowband video codec for generating an output stream of control, data, and error correction bits comprising:

means for framing the output control and data bits into a series of sequential frames of bytes for transmission over an rf link of a controlled frequency wherein each frame comprises an identical sequence of bytes;

- 10 each frame comprising, in sequence two control bytes;

a plurality of sequential sets of data bytes, each set of data bytes comprising a sequence of at least one audio byte and a plurality of video bytes, each set of data 15 bytes having its audio and video bytes in the same order as each other set of data bytes; and

a plurality of error correction bytes.

2. The narrowband video codec of claim 1 wherein each 20 set of data bytes has the same number of video bytes between sequential audio bytes.

3. The narrowband video codec of claim 1 wherein the control bytes include data bit signals representative of the 25 number of bytes in the frame.

4. The narrowband codec of claim 1 further comprising means for periodically refreshing the decompressed video image.

- 30 5. The narrowband codec of claim 1 further comprising means for controlling of the level of error correction without re-transmitting corrupted data.

- 35 6. The narrowband codec of claim 1 further comprising means for synchronizing the frames to the data rate of the rf link.

7. The narrowband codec of claim 1 further comprising a battery power supply.

8. The narrowband codec of claim 7 wherein the power supply voltage is between 18 and 36 volts.

9. The narrowband video codec of claim 1 wherein each frame comprises 200 bytes including two control bytes, 180 data bytes and 18 error correction bytes.

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10. The narrowband video codec of claim 1 wherein each frame comprises 150 video bytes and 30 audio bytes.

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11. The narrowband video codec of claim 10 wherein sequential audio bytes are separated from each other by five video bytes.

12. The narrowband video codec of claim 9 wherein each frame comprises 165 video bytes and 15 audio bytes.

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13. The narrowband video codec of claim 10 wherein sequential audio bytes are separated from each other by eleven video bytes.

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14. The narrowband video codec of claim 1 wherein each frame comprises 40 bytes including two control bytes, 18 data bytes and 20 error correction bytes.

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15. The narrowband video codec of claim 14 wherein each frame comprises 12 video bytes and 6 audio bytes.

16. The narrowband video codec of claim 15 wherein sequential audio bytes are separated from each other by two video bytes.

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17. The narrowband video codec of claim 14 wherein each frame comprises 15 video bytes and 3 audio bytes.

18. The narrowband video codec of claim 15 wherein sequential audio bytes are separated from each other by five video bytes.

~~5 Subodh~~ 19. A narrowband video codec for transmitting and receiving compressed video and audio data signals over a rf link comprising;

10 compressing the video signals into video bytes;

a first digital signal processor for converting analog video signals into digital video signals and for decompressing received digital video bytes into digital video signals and for converting the decompressed digital video signals into analog video signals;

15 a second digital signal processor for compressing the audio digital signals into audio bytes, for decompressing received audio bytes into audio digital signals, and for converting the decompressed digital audio signals into analog audio signals;

20 means for periodically refreshing the transmitted video signals;

25 means for running multiple compression and decompression algorithms on all three digital signal processors;

a solid state memory; and

means for emulating a disk access system of a computer using solid state memory components to store file sequences with compression/decompression algorithm data.

30 20. The narrowband video codec of claim 19 wherein the period for video image refresh is thirty seconds.

35 21. The narrowband codec of claim 19 further comprising a battery power supply.

SUBD2

22. The narrowband codec of claim 19 wherein the power supply is between 18 and 36 volts.

23. The narrowband codec of claim 19 further comprising means for sensing the data rate of the rf link and for transmitting and receiving data frames in accordance with the data rate of the rf link.

24. The narrowband codec of claim 19 further comprising means for randomizing data in order to maximize the efficiency of data transmission over the rf link.

25. The narrowband codec of claim 19 further comprising means for de-randomizing data from the rf link without introducing additional bit errors.

26. The narrowband video codec of claim 19 further comprising means for selecting one of a plurality of video resolution and clarity modes.

27. The narrowband codec of claim 26 wherein said video resolution modes include a low resolution mode and a high resolution mode.

28. The narrowband codec of claim 26 wherein said video clarity modes include a low clarity mode, a high clarity mode, and an intermediate clarity mode.

SUB E1

29. The narrowband codec of claim 19 further comprising a memory for storing a program connected to at least the audio digital signal processor, said memory comprising at least two audio conversion programs for converting audio at first and second respective rates.

30. The narrowband codec of claim 29 further comprising means for automatically selecting one of said

audio conversion programs in accordance with the data rate
of the rf link.

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